

Updates to Electricity Sector Greenhouse Gas Accounting Practices

*EC⁴ Council Meeting
November 3, 2022*



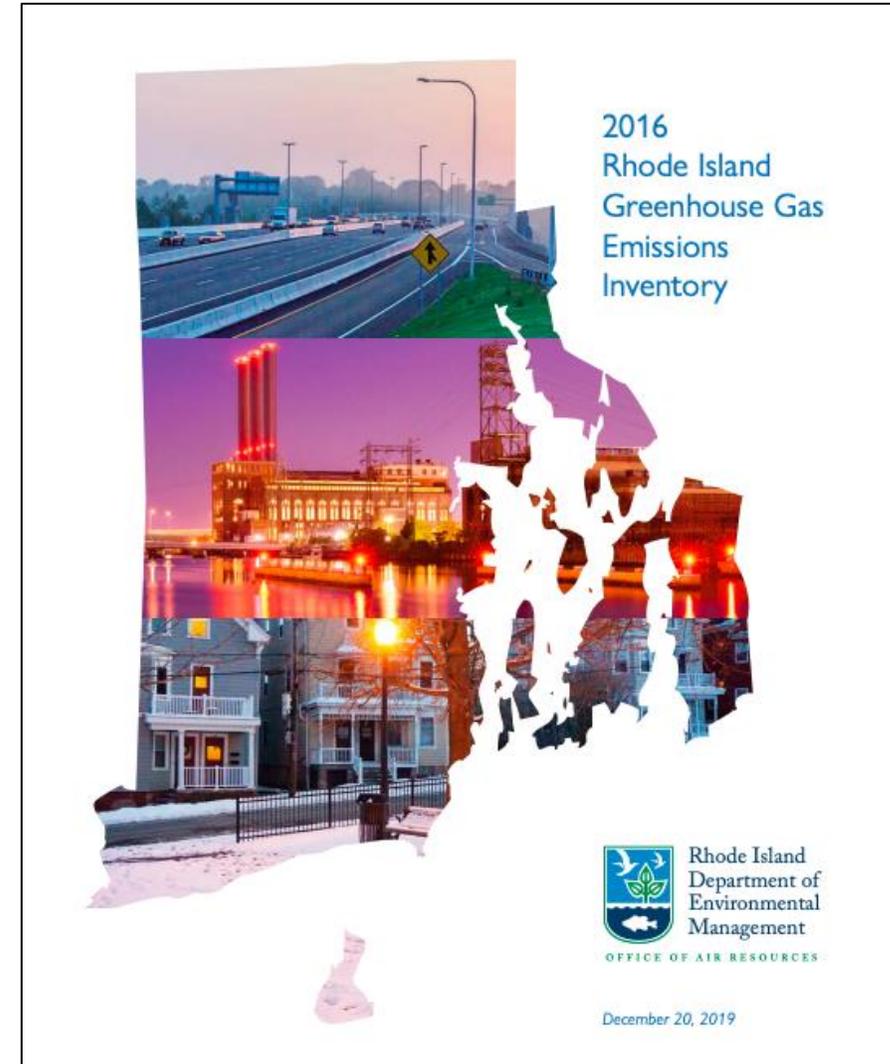
Rhode Island
Department of
Environmental
Management

OFFICE OF AIR RESOURCES

Background



- The *2016 Rhode Island Greenhouse Gas Emissions Inventory* was published in 2019 and included a new methodology to estimate electricity sector emissions.
- The methodology was developed by the Massachusetts Department of Environmental Protection (MassDEP).
- RIDEM adopted the MassDEP methodology to incorporate Renewable Energy Certificates (RECs) associated with the state's Renewable Energy Standard (RES).
- This was previously not included using EPA's State Inventory Tool (SIT).

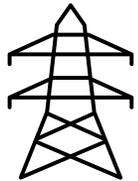


Basics of the Methodology



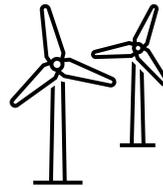
RIDEM estimates electricity sector emissions by calculating the following:

Emissions from the
New England
power grid



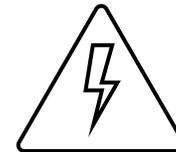
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Emissions from
Renewable Energy
Certificates (RECs)



=

Total Electricity
Sector Emissions



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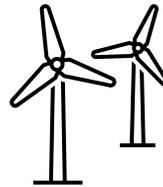
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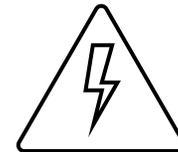
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Emissions from
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Total Electricity
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However, MassDEP's methodology did not count *all* RECs assigned to Rhode Island. An update was needed to ensure the GHG emissions inventory aligned with the actual number of RI RECs.



Timeline of New Updates

- In October 2021, the Connecticut Department of Energy and Environmental Protection (CTDEEP) proposed a new methodology to count *all* CT RECs.
- Motivation: Connecticut agreed to settle more RECs from the Millstone Nuclear Power Station to help meet their state climate goals.
- In a June 2022 meeting, CTDEEP informed RIDEM and the RIPUC of their new methodology.
- After careful consideration and sensitivity analysis, RIDEM adopted the new methodology for inventory year **2019**.
- In October 2022, RIDEM opened a public comment period for updates to electricity sector GHG accounting.

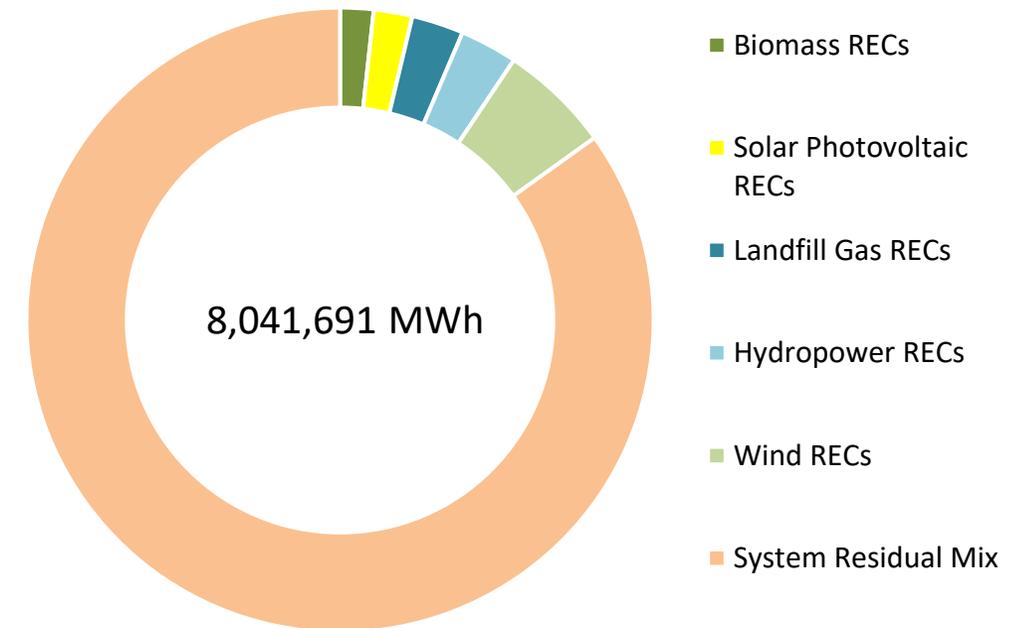
Photo: University of Kentucky

Impact Electricity Sector Emissions



- The original MassDEP methodology pooled all RECs into a hypothetical “bank”.
- The RECs apportioned to states based on electric load size.
- The state with the largest load would receive the most RECs from the “bank”.
- With RI’s relatively small load, we weren’t counting all the RECs we should have.
- **The updated methodology ensures all RECs that are settled or reserved in Rhode Island are counted in Rhode Island only.**

Sources of Megawatt Hours for R.I. Electricity Consumption (2019)



* Megawatt hours generated from wood RECs and digester gas RECs are too small to appear on this chart.

Conclusion



- Since all RECs assigned to RI are now counted, electricity sector emissions decreased in 2019.
- Other factors (fuel prices, weather, etc.) also decreased electricity sector emissions in 2019. Connecticut noticed a similar % decrease.
- The public comment period was extended through **Nov. 4, 2022.**
- The full *2019 Rhode Island Greenhouse Gas Emissions Inventory* triennial summary will be released in **December 2022.**

The adoption of CTDEEP's methodology was an important *step* towards aligning the GHG inventory with RI's 100% RES by 2033 mandate.

RIDEM will work alongside RIPUC and CTDEEP to continuously improve this methodology to ensure sound accounting practices.

Photo: PurEnergy

Thank You!

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Rhode Island Greenhouse Gas Emissions Inventory:

<https://dem.ri.gov/environmental-protection-bureau/air-resources/greenhouse-gas-emissions-inventory>



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